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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,542	07/21/2003	Leonid Andreev		3890
32339	7590	05/06/2005		
LEONID ANDREEV 24217 N. 87TH STREET SCOTTSDALE, AZ 85255			EXAMINER MIZRAHI, DIANE D	
			ART UNIT 2165	PAPER NUMBER

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/622,542

Applicant(s)

ANDREEV, LEONID

Examiner

DIANE D. MIZRAHI

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty-(30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 6-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

DIANE D. MIZRAHI  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

III. DETAILED ACTION

Claims 1-8 are presented for examination.

Claim Objections

Claim 7 is objected to because of the following informalities: Examiner is unclear as to what Applicant meant by "its" (see line 3). Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Frederick Herz et al. (US Patent No. 6020883 A1 and Herz hereinafter).

Regarding Claims 1 Herz teaches a computer-based method for computation of similarity matrices of objects in a high-dimensional space of attributes with the purpose of clustering by method for evolutionary transformation of similarity matrices, allowing for fusion of different attributes (parameters) on a dimensionless basis, comprising the steps of:

a) computation of similarity matrices for each of attributes (parameters) individually, (col 19, lines 5-63) such matrices being monomer similarity matrices (i.e. by combining ... matrices) (col 5, lines 25-54) and b) hybridization of all monomer similarity matrices into one hybrid matrix which is further used in clustering process (i.e. reads on the combined rofiles of Mom and Dad in the evening and the combined profiles of the children in the afternoon) (col 5, lines 25-55).

Regarding Claim 2, Herz teaches hybridization of monomer similarity matrices is performed so that all similarity coefficients in monomer similarity matrices for one and the same pair of objects are averaged through computation of their geometric or arithmetic means (col 10, lines 23-66 to col 11, lines 1-22).

Regarding Claim 3, Herz teaches wherein each of monomer similarity matrices used in computation of a hybrid matrix is

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computed with the use of a metric that most optimally suits a respective attribute (parameter) (i.e. an agreement matrix so defined is the reciprocal of the distance  $d (=1/ac)$  in multi-dimensional space between the customer profile vector and the content profile vector and that many different distance measurement techniques may be used in determining the distance  $d$ ) (col 5, lines 55-67 to col 6, lines 1-15).

Regarding Claim 4, Herz teaches wherein a choice of metrics used in computation of monomer similarity matrices for further hybridization into a hybrid matrix depends on whether a respective attribute (parameter) describes a shape or power of an object (i.e. attributes such as amount and degree of sex, violence, and profanity; MPAA rating; country of origin; and the like) (col 11, lines 41-55).

Regarding Claim 5, Herz teaches wherein attributes (parameters) should be treated either as those describing a shape or as those describing a power, depending on a problem to be solved by clustering analysis (col 15, lines 22-33).

**Allowable Subject Matter**

Claims 6-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

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independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Applicant's particular computation of similarity matrices of objects in a high-dimensional space of attributes with the purpose of clustering by method for evolutionary transformation of similarity matrices wherein monomer similarity matrices are based on attributes, parameters, describing shapes of objects are computed with the use of a metric representing a ratio of a lesser value to a greater value of exponential functions in which a base is a constant  $>1$  and an exponent is a value of a respective parameter, in combination with the other limitations of the claims, was not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record.

The dependent claims, being further limiting to the independent claims, definite and enabled by the Specification are also allowed. The closest prior art fails to anticipate or render Applicant's limitations above obvious.

**Other Prior Art Made of Record**

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. U.S. patents

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and U.S. patent application publications will not be supplied with Office actions. Examiners advises the Applicant that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources. For the use of the Office's PAIR system, Applicants may refer to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diane D. Mizrahi whose telephone number is 571-272-4079. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (571) 272-4083. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 305-3900 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

A handwritten signature in black ink, appearing to read 'Diane Mizrahi', is written over a horizontal line.

Diane Mizrahi  
Primary Patent Examiner  
Technology Center 2100

May 2, 2005